

**Listed Waterbody:** Lompico Creek

**Listed Condition:** Pathogens



**Designated Beneficial Uses:** Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Ground Water Recharge (GWR), Contact and Non-contact Recreation (REC-1 and REC-2), Wildlife Habitat (WILD), Cold Freshwater Habitat (COLD), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), and Commercial and Sport Fishing (COMM)

**Watershed Location:** Santa Cruz County. Flows into Zayante Creek. Zayante Creek then flows into the San Lorenzo River

**Year added to California's CWA Section 303(d) List of Impaired Waters - 1994**

**Preliminary Schedule for Lompico Creek – Pathogen Impairment Investigation project**

Task	Completion Date	Notes
Phase 2: Project Plan	December 2003	Active
Phase 3: Data Collection and Analysis, revised Problem Statement	July 2004	*contact staff to submit data
Phase 4: Preliminary Project Report. Numeric Targets & Source Analysis	November 2004	
Phase 5: Project Report	August 2005	
Phase 6: Regulatory Action	February 2006	

**Staff Scientist:** Shanta Keeling, phone: (805) 549-3464: [skeeling@rb3.swrcb.ca.gov](mailto:skeeling@rb3.swrcb.ca.gov)

**Problem Background:**

**Basis for listing:** Lompico Creek was listed in 1994 for pathogens. The exact data and/or reports used to list this waterbody are unknown, however, data taken by the County of Santa Cruz from 1985 to 1994 do show exceedences of the Basin Plan's bacterial water quality objective<sup>1</sup> for contact recreation (see Appendix 1).

**Review of data subsequent to listing:** Lompico Creek occasionally exceeds the Basin Plan's bacterial water quality objectives for contact recreation (see Appendix 1 and Figure 1) from 1995 to January 2004. Upon reviewing the most recent year of data, 2003, only 2 months out of 12 exceeded 400 MPN and the two months that did exceed the standard were above it by a very small amount (540 and 564 MPN in June and August). In other words, Lompico Creek continues to have exceedences of the REC-1 standard on occasion, but does not exceed the standard by a large amount in either concentration of fecal coliform or in the number of times per year the standard is exceeded.

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<sup>1</sup> REC-1: "Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of total samples during any 30-day period exceed 400/100 ml."

Sources: The pathogen sources are not specifically known, but are believed to include septic systems and other nonpoint sources such as dogs. There is a limited quantity of livestock in the watershed. The County's Wastewater Management Plan<sup>2</sup> requires septic system improvements in the event septic systems are failing. Data from DNA analysis that is currently (2004) being performed in the San Lorenzo River Watershed may be used as a rough guide for what sources may be impacting Lompico Creek as well.

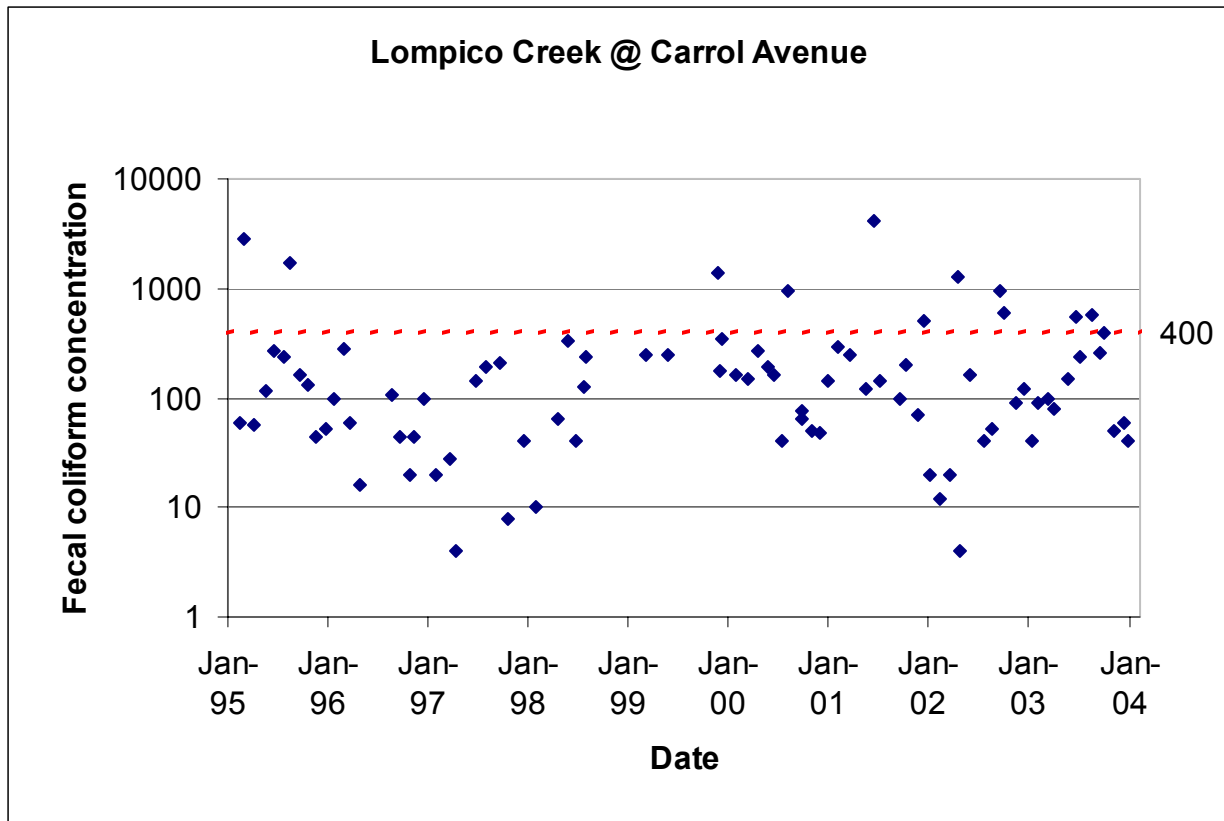


Figure 1: Fecal coliform concentration of sampling site “Lompico Creek at Carrol Avenue” from 1985 – 2004.

What next? Lompico Creek rarely exceeds bacterial water quality objectives. Because the magnitude and frequency of exceedences are quite low, staff has three possible recommendations:

1. Lompico Creek be designated a low priority because there are other areas in the Santa Cruz area that seem to be violating bacterial water quality objectives on a more regular basis (e.g. San Lorenzo River Lagoon) and the magnitude and frequency of exceedences are quite low;
2. Continue to track the County of Santa Cruz's monitoring data and keep tabs on the situation to see if it is improving, staying the same or worsening. After a couple of years (2006 for example), evaluate data and determine if there is a change in water quality that more clearly indicates impairment or attainment of water quality objectives;

<sup>2</sup> County of Santa Cruz, Health Services Agency, Environmental Health Service Wastewater Management Plan for the San Lorenzo River Watershed, February 1995.

3. Move forward with a TMDL to pursue addressing coliform issues in Lompico Creek. If this option is chosen, the following schedule is proposed:

**Phase 3: Data Collection and Analysis (essentially complete)**

Who	Regional Board (RB) staff – (S. Keeling); Assistance of GIS personnel in developing Monitoring Plan  Stakeholders - Review Monitoring Plan and Data Collection Report to provide technical assistance
Action Steps & Schedule	<ul style="list-style-type: none"> <li>July 2004: Develop Data Collection and Analysis Report and revised Problem Statement. This report will present data collected from the last five years of Regional Board/County files and CCAMP (Central Coast Ambient Monitoring Program). This report will document water quality conditions and identify preliminary sources by assuming results of existing DNA analysis from other watersheds can be applied in this one (need to check and make sure the land uses are the same in order to draw this kind of parallel). <i>This step is essentially complete via the Project Plan.</i>  <u>OR</u> per alternate plan: If it's determined during the preparation of this report that additional data (i.e. site specific DNA analysis) is necessary to identify sources, staff will develop, require and oversee implementation of a Monitoring Plan and submittal of results. Purpose of the Monitoring Plan would be to further characterize sources using County monitoring stations and analysis, possibly including DNA analysis. This would postpone the completion of the data collection and analysis report until July 2006.</li> </ul>
Cost (PY & \$)	<u>Staff Resources:</u> FY 2004-05: 0.05 PY (because this step is essentially complete) FY 2005-06: 0.1 PY (if alternate plan takes place) <u>Contract Resources:</u> <u>Other:</u> None
Issues	<ul style="list-style-type: none"> <li>Staff is operating on the assumption that we have sufficient data to proceed. If this assumption is wrong as of November 2004, the plan may be modified.</li> </ul>

**Phase 4: Preliminary Project Report. Numeric Targets and Source Analysis**

Who	Regional Board staff – (S. Keeling); Assistance of GIS personnel (yet to be determined)  Stakeholders – Review Source Analysis Report to provide technical assistance
Action Steps & Schedule	<ul style="list-style-type: none"> <li>September 2004 - October 2004: Evaluate collected data to determine where objectives are being exceeded and use data to determine probable sources causing exceedences. Complete Source Analysis including GIS analysis to determine land uses in watershed. <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, August 2006 - September 2006</li> </ul> </li> <li>November 2004: Summarize and describe Source Analysis and Numeric Targets in written report. <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, October 2006</li> </ul> </li> </ul>
Cost (PY & \$)	<u>Staff Resources:</u> FY 2004-05: 0.2 PY FY 2005-06: 0.2 PY (if alternate plan takes place) <u>Contract Resources:</u>
Issues	<ul style="list-style-type: none"> <li>RB staff will utilize Basin Plan Bacteria Objectives as the numeric target.</li> </ul>

**Phase 5: Project Report(s)**

Who	Regional Board staff – (S. Keeling); Assistance of GIS personnel Stakeholders: Stakeholder will review Preliminary Project Report
Action Steps & Schedule	<ul style="list-style-type: none"> <li>December 2004 - January 2005: Prepare a preliminary Project Report that includes all components of a TMDL and draft documents for proposed regulatory action (i.e. resolution, CEQA documents, etc.). <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, November 2006 - December 2006</li> </ul> </li> <li>February 2005: Send to Stakeholders for technical advice. <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, January 2007</li> </ul> </li> <li>March 2005: Consider stakeholder comments and revise report, if appropriate <ul style="list-style-type: none"> <li><u>OR</u> alternate plan, February 2007</li> </ul> </li> <li>April 2005: Prepare a final Project Report, including TMDL, allocations, implementation and monitoring plan. Prepare other documents necessary for proposed regulatory action (e.g. resolution, CEQA documents, etc). <ul style="list-style-type: none"> <li><u>OR</u> per alternative plan, March 2007</li> </ul> </li> <li>May 2005 - August 2005: Obtain Scientific Peer Review and other reviews and prepare responses to comment. <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, April 2007 - July 2007</li> </ul> </li> </ul>
Cost (PY & \$)	<u>Staff Resources:</u> FY 2004-05: 0.2 PY FY 2005-06: 0.1 PY (if alternate plan is taken) <u>Contract Resources:</u>
Issues	

**Phase 6: Regulatory Action**

Who	Regional Board staff: (S. Keeling)
Action Steps & Schedule	<ul style="list-style-type: none"> <li>September 2005 - February 2006: Prepare for and recommend regulatory action <ul style="list-style-type: none"> <li><u>OR</u> per alternate plan, August 2007- January 2008</li> </ul> </li> </ul>
Cost (PY & \$)	<u>Staff Resources:</u> FY 2005-06: 0.1 PY FY 2007-08: 0.3 PY (if alternate plan is taken) <u>Contract Resources:</u>
Issues	

**Potential Future Activities (as needed)****Budget and Schedule Uncertainties:**

*Budget: short-term:*

*Long-term:*

*Schedule:*